

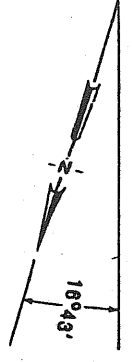
Attachment 17 –  
Attachment 8 of Pamela Sihvola and LA Wood Letter June 7, 2005



2,000 1,000 0 1,000 2,000

6,000E 5,000E 4,000E 3,000E 2,000E

Scale in Feet  
0 200 400 600 800 1000



MAP SHOWING PREVIOUSLY IDENTIFIED FAULTS  
HILL AREA DEWATERING AND STABILIZATION  
Berkeley, California  
for the University of California  
Requested by  
5/15/84  
Approved by  
AC  
Checked by  
CTD  
Approved by  
NDM  
Plate 3

ATTACHMENT 8.

EXPLANATION

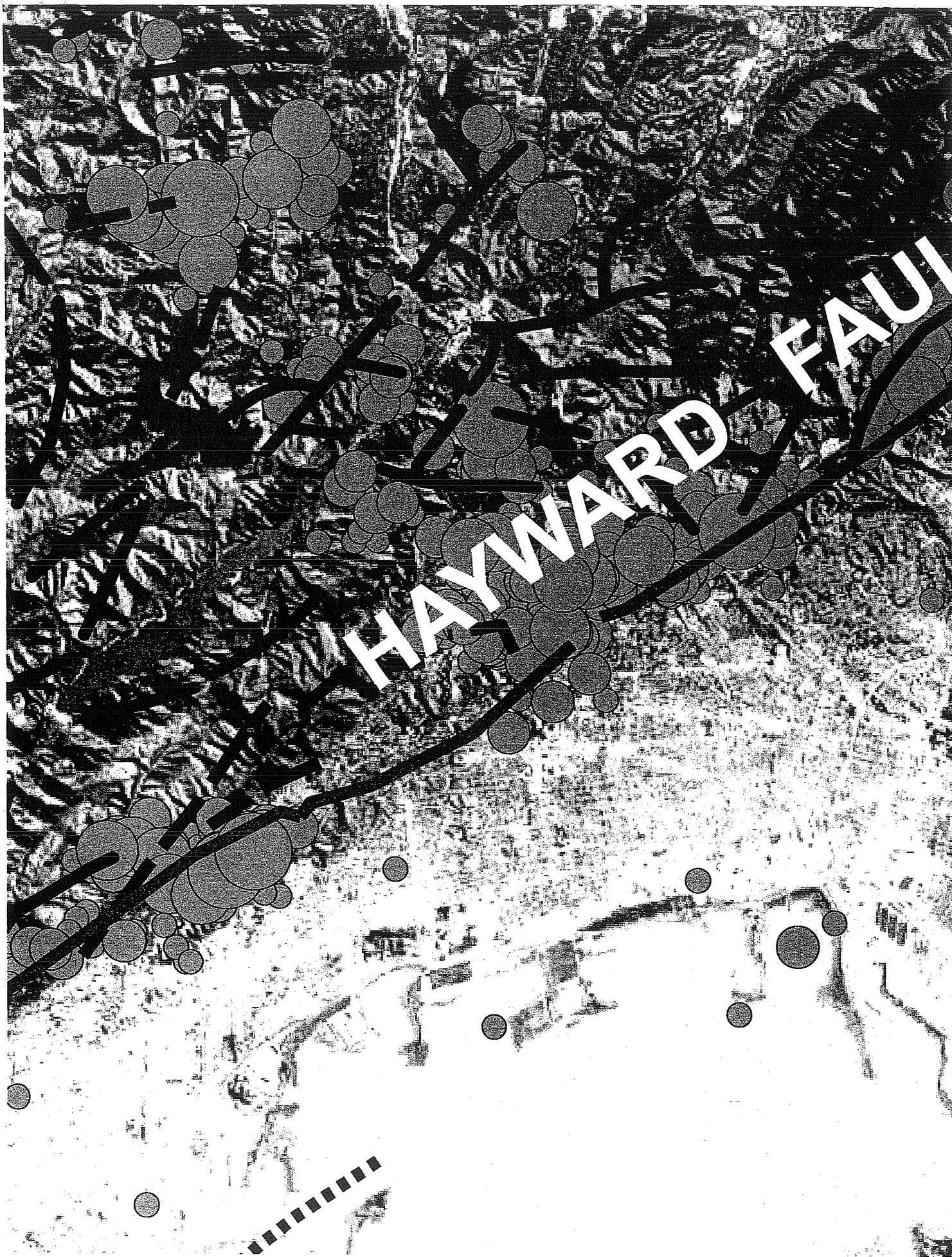
----- Fault from HLA/LBL map (June 1979)

----- Fault from Lennert & Associates geologic map (12/9/78, revised 11/26/79)

Dashed (---) where inferred, dotted (....) where concealed, queried (?-?) where uncertain.

NOTE: This map shows the locations of faults identified in previous investigations by Harding Lawson Associates or by Lennert and Associates. The fault locations were obtained from the geologic maps listed above which were obtained from the University of California Berkeley Laboratory. Of the faults shown, those interpreted by Converse to exist based on field investigation and a thorough review of existing geologic data are shown on Plate 2 (Geologic Map). A number of faults shown on this map could not be confirmed, including the University fault, New fault, Space Sciences fault and members of the Lawrence Hall of Science fault complex. (See Chapter 4).

# HAYWARD FAULT

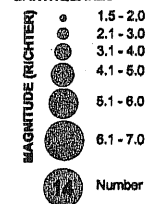


## MAGNITUDE 5.0 AND GREATER EARTHQUAKES

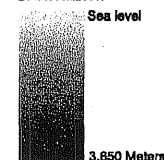
Earthquake No.	Date	Time (Universal Time Coordinated)	Latitude (N.)	Longitude (W.)	Depth (km)	Magnitude (Richter scale)
1	28 Nov 1974	23:01:24.56	36.9202	121.4883	6.11	5.37
2	8 Aug 1979	17:05:22.91	37.1042	121.5127	8.93	5.80
3	24 Jan 1980	18:00:08.63	37.8367	121.7708	14.72	5.23
4	24 Jan 1980	19:01:01.53	37.8115	121.7772	7.07	5.10
5	27 Jan 1980	02:33:35.32	37.7493	121.7082	14.89	5.18
6	23 Jan 1984	05:40:19.93	36.3650	121.8878	8.19	5.12
7	24 Apr 1984	21:15:18.75	37.3095	121.6787	8.74	5.82
8	26 Jan 1986	19:20:50.93	36.8040	121.2847	8.72	5.50
9	31 Mar 1986	11:55:39.80	37.4788	121.6858	9.17	5.70
10	20 Feb 1988	08:39:57.24	36.7957	121.3117	9.82	5.03
11	13 June 1988	01:45:36.52	37.3923	121.7415	9.71	5.30
12	27 June 1988	18:43:22.32	37.1268	121.8962	13.15	5.30
13	8 Aug 1989	08:13:27.36	37.1458	121.9282	14.23	5.40
14	18 Oct 1989	00:04:15.20	37.0362	121.8802	17.29	7.00
15	18 Oct 1989	00:41:23.70	37.1873	122.0548	16.78	5.10
16	18 Apr 1990	13:53:51.30	36.9320	121.8577	5.68	5.75
17	18 Apr 1990	15:48:03.44	36.9583	121.8848	6.67	5.38
18	16 Jan 1993	06:29:35.00	37.0182	121.4630	7.90	5.10
19	11 Aug 1993	22:33:04.00	37.3120	121.6793	9.35	5.00
20	23 Apr 1995	08:41:36.63	36.8025	121.2015	7.84	5.14
21	12 Aug 1998	14:10:25.12	36.7533	121.4622	9.13	5.35
22	3 Sept 2000	08:36:30.09	36.3788	122.4127	10.12	5.17

### EXPLANATION

#### EARTHQUAKES



#### BATHYMETRY



**FAULTS** — Dashed where approximately located; dotted where inferred  
 — Active in last 700,000 years  
 — Active prior to 700,000 years ago

Bathymetry generated from a digital version of National Oceanic and Atmospheric Administration (NOAA) maps (Chin and others, 2001) and hydrographic data for San Francisco Bay (NOAA, 1995)

Elevation data from U.S. Geological Survey National Elevation Database (1 arc-second); sun illumination from the northwest (316°) at 60° above horizon

Landsat satellite image from seven Landsat 7 Enhanced Thematic Mapper Plus scenes collected between 1999-2001. Individual Landsat scenes processed by the U.S. Geological Survey Earth Resource Observation Systems (EROS) Data Center, Sioux Falls, South Dakota, using the National Land Archive Production System (NLAPS)

Fault data reproduced with permission, California Geological Survey, CD-ROM 2000-008 (2000), Digital database of faults from the fault activity map of California and adjacent areas

Earthquake data from the Northern California Earthquake Catalog (1970-2003)

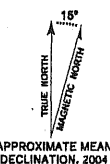
Universal Transverse Mercator Projection, Zone 10 North

#### REFERENCES

Chin, John, McHendrie, Craig, Madison, Carol, and Wong, Florence L., 2001, COALBATC - bathymetry contours for the central California region between Point Arena and Point Sur, in Wong, F.L., and Elitzin, S.E., compilers, Continental Shelf GIS for the Monterey Bay National Marine Sanctuary: U.S. Geological Survey Open-File Report 01-179 (available on the World Wide Web at <http://geopubs.wr.usgs.gov/open-file/of01-179/>).  
 National Oceanic and Atmospheric Administration, 1995, San Francisco Bay digital hydrographic data: National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Coast Survey and Office of Ocean Resources Conservation and Assessment, Seattle, Washington. [Current version available from NOAA at <http://www.ngdc.noaa.gov/mgg/tiers/03mrgg03.html>].

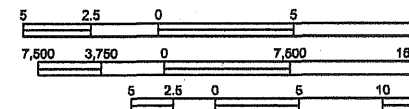
<sup>1</sup>U.S. Geological Survey, Menlo Park, California; <sup>2</sup>California Geological Survey, San Francisco, California

123°00'00"W



APPROXIMATE MEAN DECLINATION, 2004

SCALE 1:300



NORTH AMERICAN HORIZON  
 NATIONAL GEODETIC VERTIC

## EARTHQUAKES AND FAULTS IN THE SA

By

Benjamin M. Sleeter,<sup>1</sup> James P. Calzia,<sup>1</sup> Stephen R. W

ATTACHMENT

#5

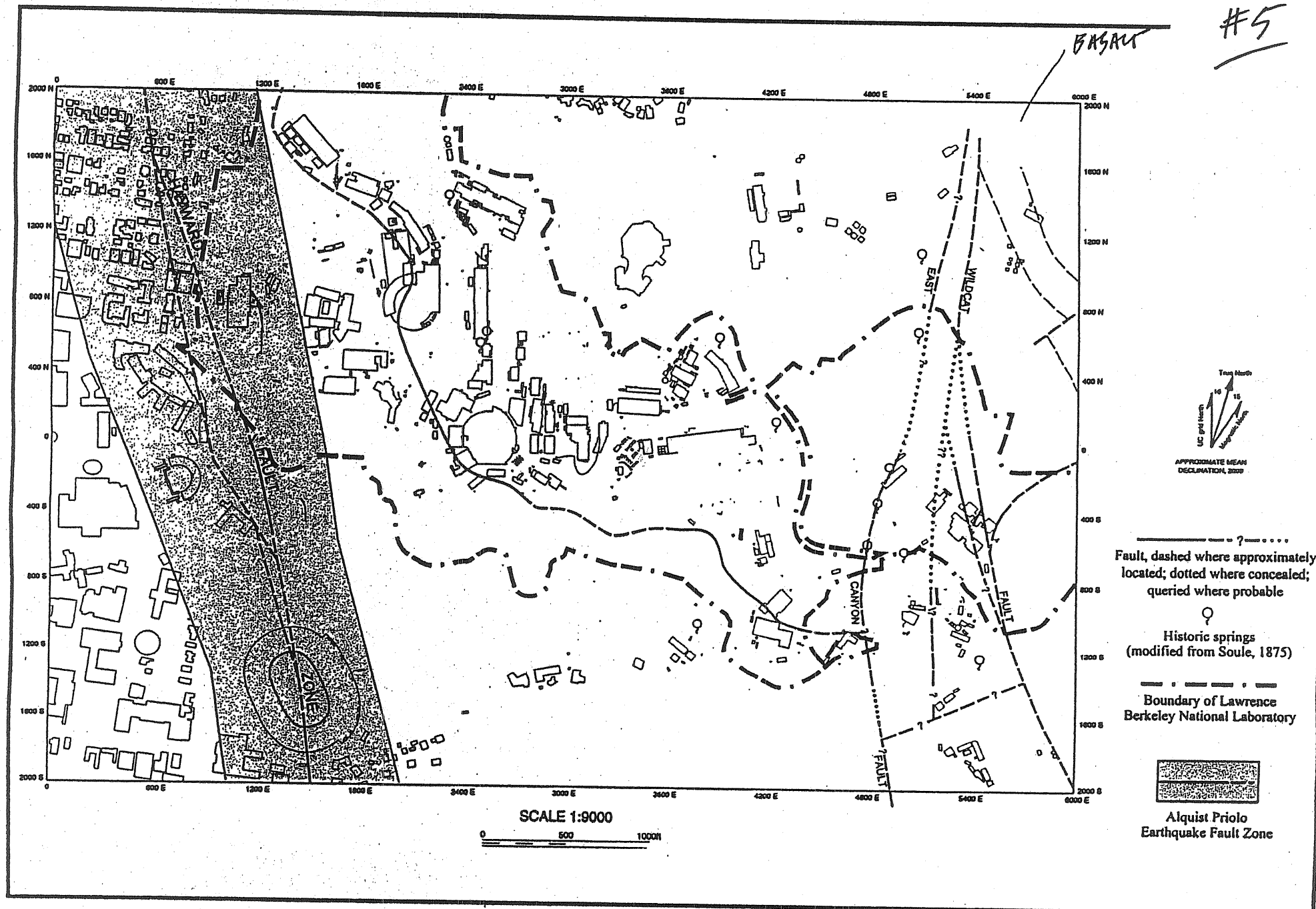


Figure 4.2-6. Fault Map of LBNL Showing Location of Alquist Priolo Earthquake Fault Zone.

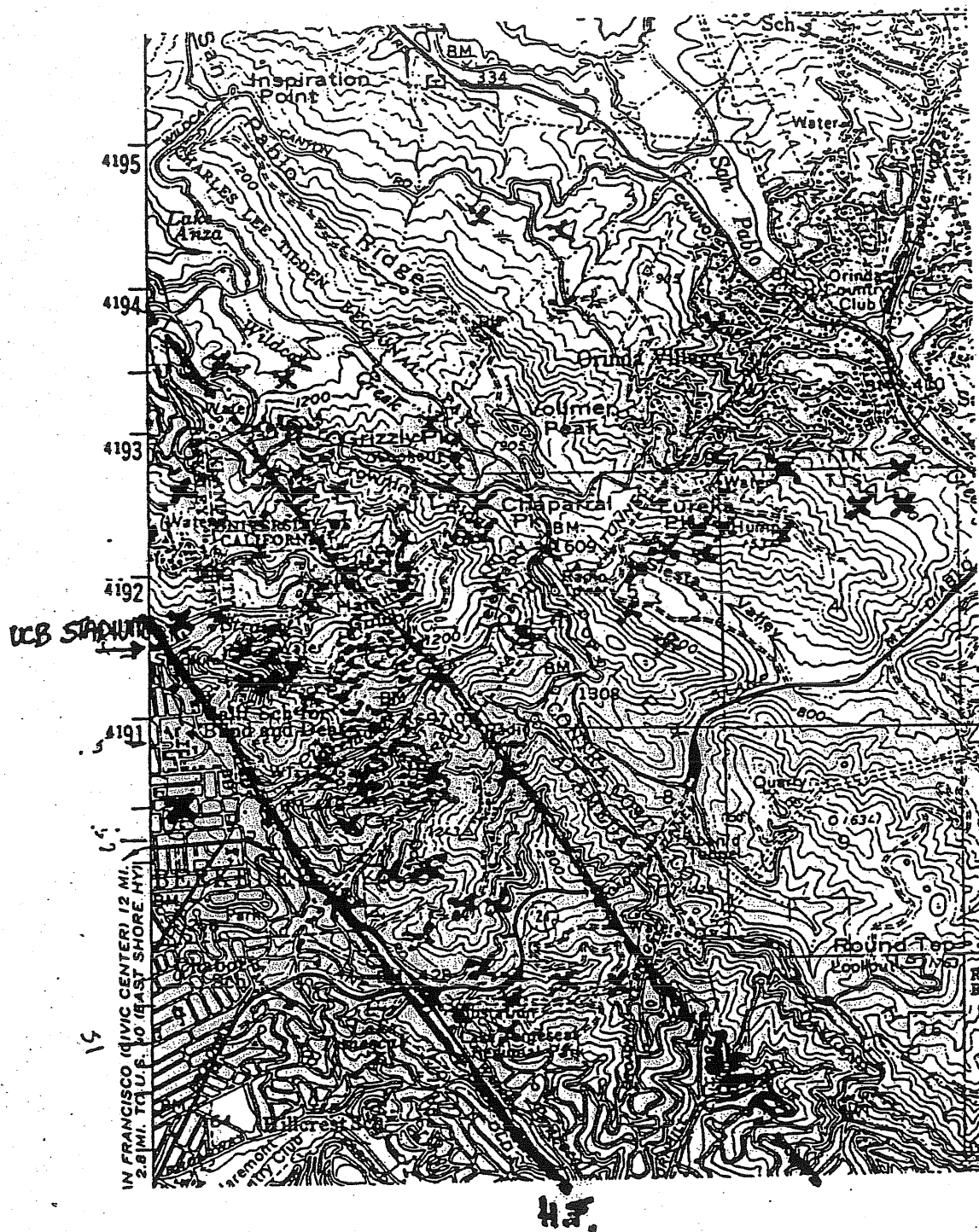


Figure 1. Planform map of the Berkeley/Oakland Hills showing magnitude 1.8 and larger earthquakes that have occurred since 1968. The Hayward and Wildcat Faults are indicated in red.

FIGURE 2a.

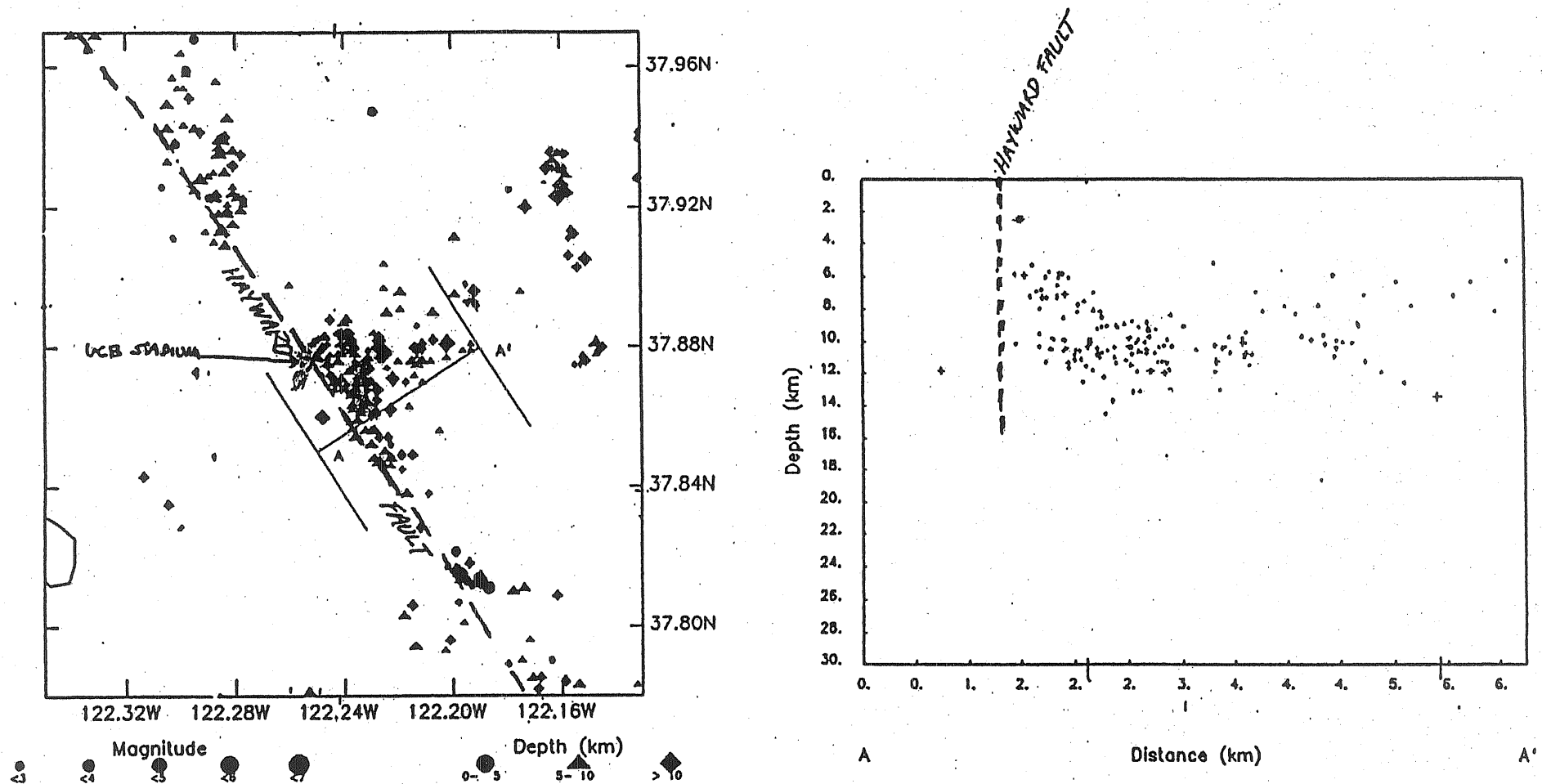


Figure 2a. The earthquake events shown in Figure 1 are represented by the points falling within cross section A - A'. Depth and magnitude of events are indicated by size and shape of symbol.

Figure 2b. Depth section showing distribution of magnitude 1.8 and larger earthquakes along and east of the Hayward Fault since 1968 within cross section A - A'. Note that most earthquakes do not correspond to position of the Hayward fault.

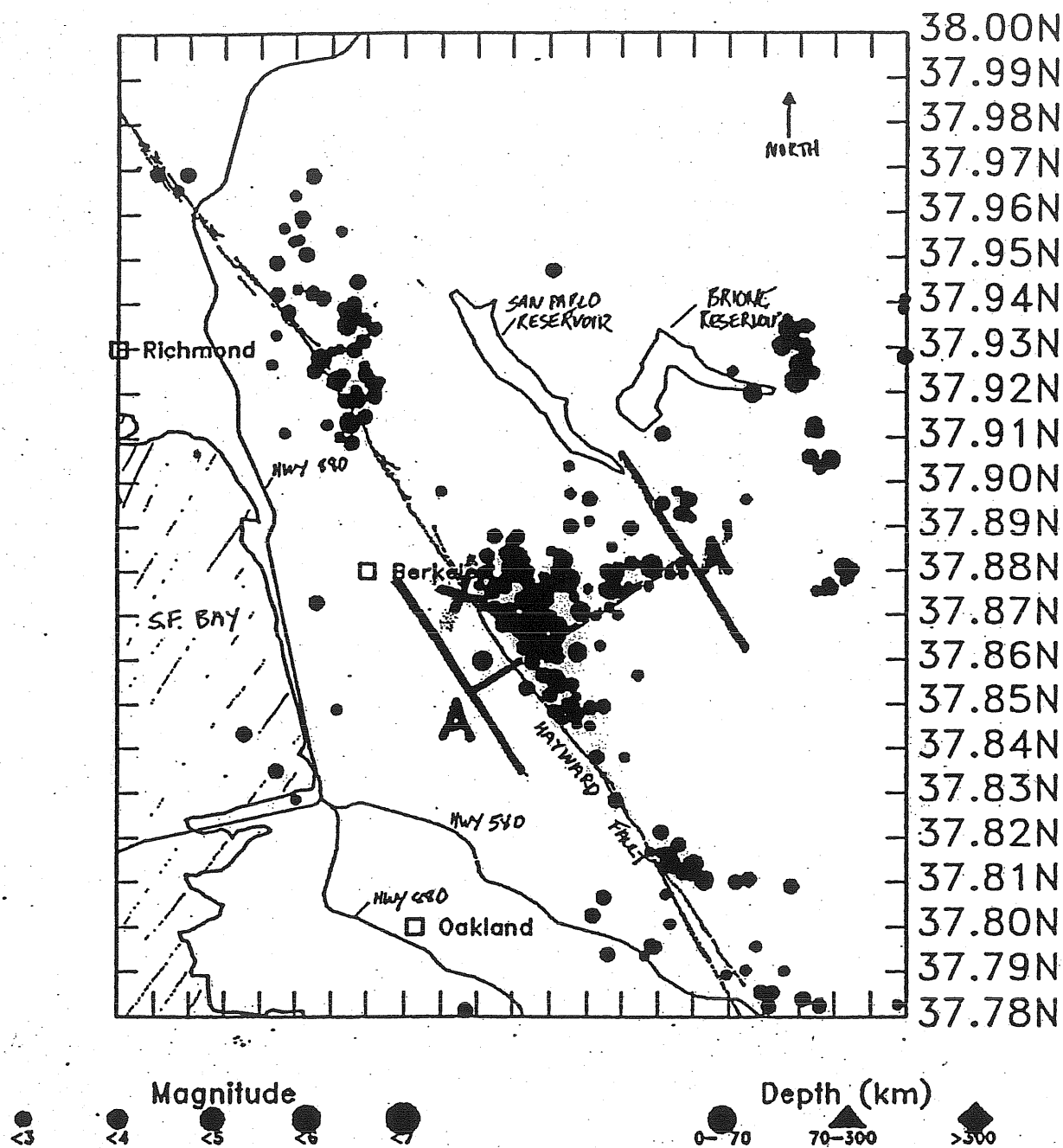


Figure 3. Plot of the distribution of magnitude 1.8 and larger earthquakes occurring along the general vicinity of the Berkeley/Oakland hills since 1968. Note the gaps in seismic activity between clusters of events. The cross section A - A' represents the cluster of epicenters shown in Figures 1 and 2. The red X indicates the location of the UCB Stadium.